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Rizzo, III

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[54] **INTRA-OCULAR LENS SYSTEM INCLUDING MICROELECTRIC COMPONENTS**

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[52] **U.S. Cl.** **623/6**

[58] **Field of Search** ..... 623/6; 351/160 R, 351/161

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[57] **ABSTRACT**

Dynamically functional intra-ocular prosthesis. The prosthesis includes an implantable intra-ocular lens and microelectronic components mounted on the lens. One embodiment is a variable focal length implantable intra-ocular lens system for adjusting the focal length of the implantable lens. In one embodiment, a micromotor changes the tension in a band encircling the peripheral portion of the deformable lens changing its shape to vary its focal length. Another embodiment is an artificial intra-ocular lens which serves as a holding substrate for microelectronic components that form part of a prosthesis to stimulate the neural elements of the eye to restore vision to patients who are blind from retinal disease.

7 Claims, 1 Drawing Sheet